

**Federal
Regional
Design
Assembly**

**Western
States**

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Introduction

For two centuries the federal government has been dealing in design matters through its responsibilities for constructing and furnishing office buildings, printing publications and hiring design professionals. Today there is no question that it is the largest client of design services in the world.

Three years ago the federal government acknowledged its responsibility to take the leadership necessary to exemplify the highest standards of design excellence. In May 1972 the White House initiated the Federal Design Improvement Program and asked the National Endowment for the Arts to coordinate its implementation.

Four major elements comprise the Federal Design Improvement effort: 1) Design Assemblies; 2) a review and expansion of the 1962 Guiding Principles for Federal Architecture; 3) a Federal

Graphics Improvement Program, and 4) revised Civil Service procedures for recruiting and hiring design professionals for government service. The significant progress made in each of these areas is highlighted in Nancy Hanks's address to the Federal Regional Design Assembly/Western States on page six.

The objective of Design Assemblies is to increase federal administrators' awareness and understanding of design as a management resource. The Assemblies are devoted to explaining and illustrating how design can serve as an effective management tool to save time and money, enhance communication and simplify maintenance.

Since 1973, three Design Assemblies have been convened. The First and Second Federal Design Assemblies were held in Washington, D.C. The first Federal Regional

Design Assembly/Western States represented a pilot effort to hold an Assembly for federal administrators and designers working in the 15 state western region. Four-hundred federal and state officials attended the two-day program that included sessions on architecture, interior design/industrial design, landscape architecture/environmental planning and visual communications.

These proceedings record the presentations made by each of the Assembly's speakers. The subjects and issues discussed are as relevant now as they were at the Regional Assembly.

Lani Lattin
Coordinator
Federal Regional Design
Assembly/Western States

A panel discussion during the landscape architecture session in Foote Music Hall.

Table of Contents

4 General Session

10 Architecture

20 Interior Design
Industrial Design

28 Visual Communications

36 Landscape Architecture
Environmental Planning

41 Governor's Remarks



General Session

6 Robert N. Sheets

6 **The Federal Design Improvement Program**
Nancy Hanks

8 **Keynote Address**
The Honorable
Rogers C. B. Morton



Robert N. Sheets has served as Executive Director of the Colorado Council on the Arts and Humanities since 1968. Currently he is a member of the Board of Directors of the Western States Arts Foundation, a member of the Colorado Humanities Committee, and an advisor to Historic Denver, Inc.



Nancy Hanks has served as Chairman of the National Endowment for the Arts and the National Council on the Arts since 1969. Prior to 1969, Miss Hanks was President of the Associated Councils of the Arts; Executive Secretary of the Special Studies Project, Rockefeller Brothers Fund; and Project Coordinator for the Rockefeller Panel Reports entitled *The Performing Arts: Problems and Prospects for America*.



Rogers C. B. Morton was appointed Secretary of Commerce in May 1975 after serving as Secretary of the Interior, Chairman of the Republican National Committee and as Congressman from Maryland's Eastern Shore for seven years. Since the Regional Assembly, Mr. Morton has been appointed Counselor to the President of the United States.



Patchwork Puppet Productions: **Ingrid Crepeau** (Peter Principle), puppet designer; **Sarah Toth Yochum** (Millie Modern), author; **Julian Yochum** (Leroy Letterman), author. Patchwork Puppet Productions is a professional puppet company residing in Washington, D.C. The members of Patchwork were involved in the writing, performance, design and construction of an extensive variety of traditional and originally-scripted puppet productions for the Smithsonian Resident Puppet Theater.

Patchwork Production's puppet vignette, "The Client-Editor-Designer Connection," made a number of cogent statements about improved federal graphic design as an important national goal.



Opening Remarks
Robert N. Sheets

On behalf of the Colorado Council on the Arts and Humanities it is my pleasure to welcome you to Denver and this first Federal Regional Design Assembly. The Colorado Council and its staff is proud to have assisted the National Endowment for the Arts in the preparation of these next two days and I would like to recognize the Colorado Council Chairman Robert B. Yegge for his fine leadership in this regard.

Having just returned from a three-week tour of the Arts

Councils of Great Britain, I am full of the enthusiasm and commitment to quality of design and how it affects our lives. England, Scotland and Wales today are living testaments of a designed historical tradition.

When we toured the mining districts of Wales it became infinitely clearer to me how great the designed heritage of the Ronda Valley has affected the architecture of Colorado. The role of design in our human fabric is a universal

association and its ability to communicate better understanding between peoples is as strong on the plus side as the absence of quality design is strong in the misunderstandings of people. To design is to communicate, and our goal here these next two days is to challenge our senses as government representatives to open the doors within our bureaucracies to better communication through better design.

The Federal Design Improvement Program
Nancy Hanks

We are getting started a little late—not this morning but late in this century. In fact, the first Federal Regional Design Assembly could have been held 200 years ago. That's pretty late to begin when we think about it because the government was involved in design before there was a federal government. After all, the Declaration of Independence is a very beautiful and impressive work of graphics. And, 200 years ago, the Second Continental Congress considered the design and outfitting of the first American naval ships.

And what about the famous textile designer who designed a work of worldwide impact that remains as modern today as when it was first designed, the American flag? All my history books said the person was Betsy Ross—now people are saying it was Francis Hopkinson, a signer of the Declaration of Independence from New Jersey. I don't know who designed the flag, but I don't think it makes that much difference—we got a good one, so you take your pick.

As for architecture and urban planning, the federal government has been a major design client since its inception. After the Constitution was ratified in 1789, various cities wrangled for the honor—and the economic asset—of becoming the permanent seat of government. The argument was resolved with the decision to

build a new capital from the ground up, a city that would reflect the new republic's ideals in its design and architecture.

Pierre L'Enfant was chosen to plan the city on the Potomac, and he was eminently qualified. Since L'Enfant's day the United States Government has become the largest single design client in the world. Uncle Sam is the busiest builder, the most prolific publisher and the most active purchaser of products from paper clips to interplanetary rockets.

Because government is such an active design client, it should have been in the forefront of design excellence. We should have been constantly setting an example. But for years the government did not.

Aware of that unhappy fact, four years ago the White House initiated the Federal Design Improvement Program and asked the National Endowment for the Arts to be its coordinator.

Interest in this Program has been widespread. We've had wonderful cooperation from most government agencies. This Assembly today, as you know, is co-sponsored by the General Services Administration and by the Department of the Interior. We have active cooperation of many other agencies, both state and federal. President Ford recently wrote: "The American people are right to expect

excellence from their public officials and government. I firmly believe that, in order to inspire the people's pride in their government, we must provide them with manifest evidence of its vitality, creativity and efficiency by setting the highest standards in architectural design, environmental planning and visual communication."

We all share this goal. Our purpose today and tomorrow is to discover new tools to help us meet it. We cannot inspire confidence by passively accepting the status quo, by saying "We've done things this way for years," or by ducking behind tired procedures established decades ago to solve problems that may no longer exist. We must address modern problems with modern tools, and design is one of them. Just as the founding fathers used the best available talent to reflect their highest ideals in their new capital, so can we in our own time nurture excellence.

The Federal Design Improvement Program has four components: 1) a program to review and expand the 1962 Guiding Principles For Federal Architecture; 2) a program to improve federal graphics; 3) a program to develop new civil service recruiting and rating procedures for design professionals; and 4) an education program for federal administrators and designers, of which this Assembly is a part.

Just a word about each of the

four components. They all link together. The ongoing study of federal architecture has the goal of making government buildings not only more inviting and attractive but more useful, more meaningful and more a part of the community in which they exist. To date, three reports have been issued.* These reports are being read, discussed and debated. They put to rest the misguided myth that a government building must be a brand new, isolated office block occupied exclusively by government workers. The reports elaborate the premise that older buildings, many of historic or architectural interest, can be adapted, saved, "recycled" if you will, and economically put to new uses. Elsewhere old and new government buildings can be integrated into their surrounding neighborhoods; ground floor space can be leased for restaurants, theaters, and shops. The public can patronize these businesses which, in turn, can help pay for the buildings. Presently some stumbling blocks must be surmounted, but the recommen-

*Copies of: 1) Federal Architecture: A Framework for Debate; 2) Federal Architecture: Multiple-use Facilities; and 3) Federal Architecture: Adaptive-use Facilities are available from the Architecture + Environmental Arts Program, National Endowment for the Arts, Washington, D. C. 20506.

dations hold high promise.

Interestingly, the first multiple use building—since the Pentagon—is being built right now by a quasi-government agency. This is the new home of the Federal Home Loan Bank Board, an independent agency that does not have to conform as closely as the rest of us to GSA rules. Unfortunately GSA does not presently have full authority to implement multiple-use ideas. But a bill now pending in the Congress would clearly give it that authority and other agencies could then move ahead as well. The bill has been approved by the Senate and is awaiting House action. I'm very hopeful that we will see House action soon so that we can incorporate the multiple-use factor into our buildings.

In graphics, the second element of the Federal Design Improvement Program, progress has been dramatic. Thirty-four departments and agencies—one-half the total—are working to strengthen visual communication through effective layout and design. The Endowment provides evaluation teams that review an agency's total visual output—posters, logos, forms, publications—and the teams recommend ways to make these materials more effective and economical.

When we first started the Graphics Improvement Pro-

gram people said, "Oh my heavens, you'll never make it. That's like striving to reach the moon." Well, guess what? You may not have realized it but last summer when the Russian-American space flight was launched, it carried NASA's new logo, the capstone of this agency's entire new graphics program!

Great progress has been made at the Labor Department, the Internal Revenue Service, the Environmental Protection Agency, the Federal Energy Administration, even the National Zoo. Next month Labor Secretary Dunlop will present the Vice-President with the first comprehensive graphics manual which has resulted from the Federal Graphics Improvement Program.

I think one of the outstanding success stories of graphic improvement is the National Park Service. A very fine designer took its tremendous range of typefaces and publications and put them into one format which is easier to read. In addition the Park Service saved \$340,000 in one year utilizing the new design.

We might have a breakthrough in reading the words from the Congress of the United States. The Secretary of the Senate, who is very interested in design, has just completed a pilot project to improve the readability of



New Graphics for the National Zoo were designed by Wyman and Cannan, as part of the Federal Graphics Improvement Program.

Senate publications. The results were enthusiastically received and led to the possibility of redesigning all Congressional publications, including the *Congressional Record*.

The third part of the Federal Design Improvement Program depends on the Civil Service Commission and its ability to recruit and rate qualified design professionals in *all* disciplines for *all* government agencies. New procedures have been approved in response to the Civil Service Task Force Report, *Excellence Attracts Excellence*. From now on to enter federal service as a designer, the applicant must demonstrate his or her skills and be rated professionally.

The fourth element of the Federal Design Improvement Program involves design education through publications like *Federal Design Matters*,* and Design Assemblies. The purpose of the design education program is to promote understanding of the many ways that design can be an effective management tool.

The message is simple. Design is not a frill, it is basic to the performance of products and people. A well-designed newsletter is better read than an unattractive one, it communicates more effectively. A well-designed building can be less expensive to maintain, to heat and to cool. A well-planned office interior motivates people to take a greater interest in their work.

Thus far, there have been two Design Assemblies in Washington, D.C., each attended by more than 800 federal administrators and designers. Last year Colorado and Ohio held their own State Design Assemblies. Alaska, Kentucky, Michigan, Tennessee and Washington are about to do the same. A number of federal agencies had their own intramural assemblies of similar kinds. And today we have representatives of the 15 Western States gathered for the first Federal Regional Design Assembly.

But why was Denver selected as the site for the first Regional Design Assembly? Because the design chal-

lenges we all share throughout the nation are so clear in this region: the government owns 50 million acres in the West; it manages 2500 buildings occupied by the largest number of civil servants outside Washington, D.C.; it communicates with 36 million citizens here; and this region is addressing environmental problems that are as challenging as any in the nation. Furthermore, the West has proven its eagerness to move ahead in design matters. Three states have held or are planning to hold their own assemblies. Oregon already has begun a program to improve state architecture modeled after the Federal Architecture Project.

So progress is indeed being made. We hope after these two days, more progress will be made. As civil servants and administrators, we are regaining our understanding of the importance of design to our government and our people.

**Federal Design Matters* is available from the National Endowment for the Arts, Washington, D.C. 20506.

Keynote Address
The Honorable
Rogers C. B. Morton

A better quality of life is a nebulous phrase, so nebulous that I think no two people interpret it the same way. Consequently, it describes a commodity that is hard to deal with in wholesale terms. But it probably sums up as well as anything else what we are seeking in the things we build, or print, or design.

The man-made environment is always superimposed on a greater natural environment, so the man-made environment is an intrusion. There must be a better mating between what we do here on earth with our drills and our air hammers, our earth movers, our arts and crafts and the setting that nature has put around us. We have a delicate job of balancing what man does with what nature is, and this is a philosophy that we have to put together in our own spirits and in our own souls and in our

own minds if we're really going to accomplish anything in design. To one extent or another, the difference between good and poor design will determine whether our intrusion upon nature exerts a beneficial impact.

Whether we achieve balance and harmony or disruption will determine the quality of life. In the nostalgic craze that seems to have taken hold as we get close to our 200th birthday, many people seem to want to go back to the good old days before dirty industries and automobiles were polluting the air. Well, you know there's no way to go back to the old days.

So let us not think of design as a reversion but always as a move ahead. Let's not think of design as some way just to bridge a gap in what we have done on the right and done on the left. Let's think of

design as some way of moving forward. It's a reach for greatness and once man stops reaching for greatness, the economic and political concepts on which civilizations are built will fall. In this country, wherever I go I see that the desire for the reach for greatness has often been superimposed with the desire for the status quo, by the desire for security.

Altogether there has to be a sense of adventure in design or we immediately pour concrete into the state of the art of our civilization and it hardens and when it hardens it begins to atrophy. Design must be an adventure and it must move with man's creative spirit. It is the difference between boredom and excitement in little things.

At the opening general session, Nancy Hanks shared the stage with Secretary of Commerce Rogers C. B. Morton in Houston Fine Art Center's Corkin Theater.



→13

→13A



→14



→14A



→15

→15A



→16



→16A



Architecture

12 New Guiding Principles for Federal Architecture: An Overview

Bill N. Lacy



Bill N. Lacy, Director of the Architecture + Environmental Arts Program, National Endowment for the Arts, is currently serving as Executive Director of the Federal Study to revise and update the 1962 *Guiding Principles for Federal Architecture*. An architect, he has been a faculty member at Oklahoma State University, Associate Chairman of the Department of Architecture, Rice University, and Dean of the School of Architecture, University of Tennessee.

14 New Guiding Principles for Federal Architecture: Reports and Activities

Lois Craig



Lois A. Craig, Staff Director of the Federal Architecture Project, has directed the research and editing for the ad hoc task force interim report entitled *Federal Architecture: A Framework for Debate*. She is presently preparing a visual history book on federal architecture. Ms. Craig was a consultant to the Task Force on Land-Use and Urban Growth sponsored by the Rockefeller Brothers Fund and Program Associate, Housing and Urban Growth Division, National Urban Coalition.



Frank J. Matzke, Associate Commissioner for Project Management, Public Buildings Service, General Services Administration, joined GSA in 1972. His former positions in GSA include Regional Administrator for a six-state region headquartered in Chicago, Illinois and Acting Assistant Commissioner for Construction Management.

15 New Guiding Principles for Federal Architecture: GSA Response and Current Policies

Frank J. Matzke

17 Social Scientist and Architect: The Collaborative Effort

John Zeisel, Moderator
Robert Shibley
Louis E. Gelwicks



John Zeisel, Director, Architecture Research Office and Assistant Professor in the Sociology of Design, Harvard University Graduate School of Design, is also principal of Zeisel Research, Cambridge, Massachusetts. Recently, he has served as a member of the AIA Urban Design Assistance Team studying options for urban transportation and life styles in Phoenix, Arizona, and as research director for the Massachusetts Advisory Council on Education's study to reduce school property damage.



Robert G. Shibley, an architect with the Office of the Chief of Engineers, Department of the Army, has been responsible for a wide range of architectural projects, including the development of design methods and research programs, the implementation of a computer-aided design review system and federal liaison activities related to architectural research responsibilities.



Louis E. Gelwicks is President of Gerontological Planning Associates, Santa Monica, California and since 1969 has been a partner in Gelwicks and Walls and Associates, Los Angeles and San Francisco. A Fellow of the American Institute of Architects, Mr. Gelwicks was previously a principal in his own architectural firm. From 1961-71, Mr. Gelwicks taught several courses in the area of environmental design at the University of Southern California, Los Angeles.

19 Architecture by Team

William Wayne Caudill



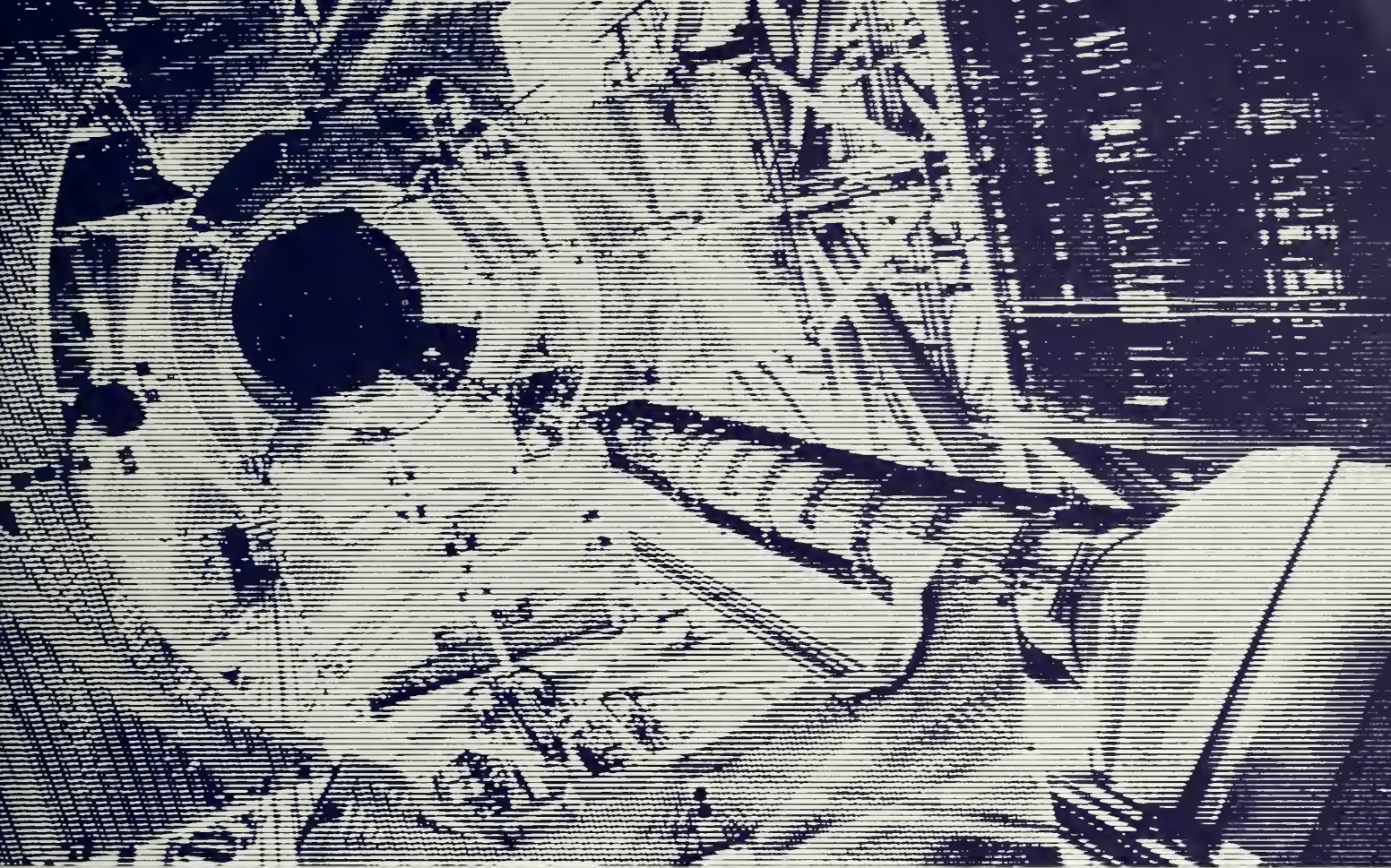
William W. Caudill, Chairman of the Board, Caudill Rowlett Scott Inc., is a nationally recognized proponent of the team concept of architecture. His firm is well known for its designs of schools and educational and health facilities. Selected Planner of the Year by the Council of Educational Facilities in 1970, Mr. Caudill is a Fellow of the American Institute of Architects.

(above)

Daniel, Mann, Johnson & Mendenhall's Titan I Launch Complex, Lowry Air Force Base, Denver, Colorado.

(below)

A view upstream of the Bureau of Reclamation's Columbia Basin Project, Grand Coulee Dam. Marcel Breuer, Hamilton Smith and Thomas Hayes were consulting architects for the Third Powerplant and Forebay Dam, built in 1968. The inclined concrete beam carries a visitor's elevator.



In a recent English article titled "Who Cares About Architecture?" the following question was posed: If it is argued that architecture reflects society and that people must love a society in order to love its architecture and if the trouble today is that people do not love their society, does it follow that we have to wait until people create a society they can love before we can produce lovable architecture?

For the past four years since I joined the Endowment, we have been trying to create a lovable architecture or, as singer Joni Mitchell puts it, trying to stop them from "... paving over paradise and putting up a parking lot." In the eight year history of the program, we have awarded over 800 grants or roughly ten million dollars and these grants have been made in the fields of architecture, urban design, landscape architecture, industrial design and interior design.

But one of our most important and ambitious projects has been the Federal Design Improvement Program which is directly responsible for this gathering today and the two which preceded it. It all started in 1972 when we finagled a Presidential directive aimed at improving the quality of design in government. Architecture is not often thought of as a means of communication but our buildings do reflect what we think of ourselves and they become a statement about our nation. We felt that this was an assignment worthy of our efforts and we've been pursuing it these last three years. We were asked to revise the Guiding Principles for Federal Architecture that were developed in 1962. Though they have a very high sounding name these first principles may have been prompted by as simple an incident as a motorcade down Pennsylvania Avenue when John F. Kennedy was inaugurated.

The story goes that the subject of how miserable Pennsylvania Avenue appeared to the august personages in the motorcade became a subject of discussion at a Cabinet meeting and an ad hoc committee was formed. Arthur Goldberg, who was then the Secretary of Labor, was asked to head this and not many people know that Arthur Goldberg had a hand in the federal architecture guidelines. Along with him was someone who played an equally prominent part, Patrick Moynihan, the former Ambassador to India and now to the U. N.

It was a very simple document but not simple-minded. The preamble to the study on Pennsylvania Avenue was in the main, a one page statement and it's important, I think, just to hit the highlights of it to give you an idea of what this first set of guiding principles covered.

Among the suggestions made in this one page were these:

Major emphasis should be placed on the choice of designs which embody the finest contemporary American architectural thought.

Where appropriate, fine art should be incorporated in the designs, with emphasis on the work of living American artists.

Design must flow from the architectural profession to the government and not vice versa.

The advice of distinguished architects ought to, as a rule, be sought prior to the award of important design contracts.

Special attention should be paid to the general ensemble of streets and public places of which federal buildings will form a part

Now, none of us, in reviewing these earlier ideas could quarrel with any of the guidelines. They were a good set of rules to follow. The

only problem was that they were limited in their coverage and more importantly, they provided no means for implementation and as good as they were, there were a number of things ten years ago that could not have been anticipated and some critical considerations that have developed in the intervening decade.

For the most part they dealt with the subject of aesthetics and we wish to add other dimensions to them. We want to talk about the social, psychological and behavioral implications of a set of guiding principles that would not only include aesthetics but would deal with the user's satisfaction, the real client instead of the "client client."

We finally came up with a word that we think sums up all the things we are trying to talk about, and that word is accessibility. The kind of accessibility that casts the government in the role of a host, we feel is a more appropriate symbol of our time than one presenting the federal government as a stable and dignified body.

In the course of developing new guiding principles, we studied a number of issues. We had a high-powered task force and government representatives from all the agencies that build. We spent two years deliberating because it's not an easy task and we were determined that we were not going to come up with a cookbook of how to do good architecture.

So we didn't set out, nor did the 1962 group, to establish an official style. Instead, we were trying to look at those things we felt could be changed, could be influenced to create a better architecture. We knew that we couldn't improve the architectural talent in the country by anything we wrote, that we were going to get the best buildings by the best talent available and that's the most we could ever hope for.

But we did deal with some of the procedural questions, some of the processes we thought were often overlooked not only in federal but non-federal architecture, and we talked about some of those things: Architectural review and evaluation boards; post-evaluation of design decisions; ways of assessing the value of amenities; establishing design review boards for federal agencies. We have no real lab for experimenting in architecture and it seemed to us the federal government offered the best opportunity for such a laboratory.

We talked about mixed uses, how to make federal buildings more lively rather than placing them in an area for the purpose of revitalizing a depressed part of the city and in fact, adding to that depression. We talked about how we might get better people within the government so that they could exercise better judgment and select better people outside the government.

We talked about the flexibility of design that would allow for growth and change. We are now recycling buildings that were built in a period when the programs were relatively simple and we find it's not that difficult to make them usable once again, a hundred years later. We think that many modern buildings are built with programmatic restrictions that don't allow for the accommodation of growth and change. Any of you in governmental positions know that change and growth are things you can count on each year, and an architecture that won't permit that kind of flexibility is a limited architecture.

Historic preservation and adaptive use were sweeping the country at the time we were looking at these guidelines, so these also became important considerations, as did architect selection and design competition.

Well, these were some of the things we grappled with and most of them found their way

into 15 recommendations and three staff reports which, in turn, have prompted some significant legislation affecting federal architecture.

Ada Louise Huxtable observed in the *New York Times* a few years ago that a certain major federal agency building program projected such an appalling image of the federal government that it could drive any loyal but sensitive citizen to defect. We believe the worst of that period is over and that our chances of seeing genuinely distinguished federal architecture haven't been better in decades.

Lighthouses are among the countless anonymous structures, both useful and beautiful, that are part of the federal government's enormous building program. At left, the Race Point lighthouse on Cap Cod and at right, the lighthouse on Cape Hatteras, North Carolina.



In addition to our staff of four, we have a task force of 15 people who have a special interest in design working on the Federal Architecture Project. They include such people as architects O'Neil Ford and Harry Weese, anthropologist Edward Hall, Dick Ravitch, a builder, and so on. Very important to our effort to improve federal architecture has been a group comprised of representatives from 20 federal agencies with major construction responsibility.

Our first task was to state what federal architecture is. In Washington, we all think we know what federal architecture is. If you leave Washington, I would say the first image that springs to people's minds would be the White House, the Capitol, or the local home town post office.

We decided we should be more methodical about a definition and remembered seeing an old report from the 30s of the Public Works Administration that listed building types. It began with abatoirs, and we were so enchanted with a list that began with abatoirs that we decided to make our own list and I had a researcher pour over the real property inventory and the appendices of the U.S. Budget. After he'd come up with 168 different building types, I let him stop. Our list began with aquariums and auditoriums and ended with youth centers and zoos. So the opportunity for design in the federal government is enormous.

The U. S. government has worldwide property worth 83 billion dollars, other projects like dams and fort facilities worth 39 billion. It constructs about one billion dollars worth of new work each year; it pays an annual rental worldwide of 528 million.

The Department of the Interior, according to *Fortune* magazine, shows greater profits than General Motors through timber rights, offshore oil leasing, etcetera. To make this more vivid you could say,

the domestic inventory includes floor space equal to 1,250 Empire State Buildings; the land holdings are the equivalent of a third of the continental United States.

We should not forget the great amount of construction the federal government supports but does not build. Standards and regulations follow our design dollars. Federal dollars go into FHA, hospitals, schools, sewers, highways. Everywhere your federal government is present designing the environment.

There are also policies that have spatial impact. One that comes to mind, air quality standards. Those standards could affect the shape of metropolitan areas. The task force concluded that the size, range, complexity of federal construction and the tanglement of related policies, regulations, people, required that they circulate a framework report. This framework was intended for debate.

Since our first task force report, we've started translating standards into architectural reality. The first report had to do with multiple use. I went to Canada to talk to officials there about their multiple use program, which is now nationwide for them in both new buildings and the conversion of old buildings.

In our own country, it has been difficult to have multiple use in federal buildings because of a lot of regulations. We thought that even without new legislation, the government could place publicly attractive services at ground-floor levels. Such things as the Government Printing Office book stores could be made an appealing storefront operation that could attract people to a building.

The Public Cooperative Use Act of 1975 is concerned with adaptive use of existing buildings. It passed the Senate this summer and is now before the House awaiting action. The bill does two things: It encourages the government to consider adapting not only

historically important buildings but also architecturally interesting buildings, which might not qualify for the National Register, before they build new buildings; and the second part allows a wide range of community and commercial units on the ground floors of federal buildings if, and this is an important if, the community so desires it.

We are now in the process of doing a staff report on design competitions and awards.

We're also interested in looking at building management and its effect on the design and the reception of federal buildings. The government-as-host approach would include housekeeping, attitudes of employees in the lobby, how designers might assist managers to assist the users of the building to claim their space. It's our belief that if people are given the chance and some encouragement that is not patronizing, they will modify their own environment.

We're also trying to give this framework for debate a historic dimension with a visual history of federal architecture. We're hoping it will be published late in 1976. We are trying to cover everything from forts and lighthouses through federal office buildings, through land policies like the railroad policies of the 19th century and the FHA and housing policies of our own time.

We'd like to see demonstrations that we alone don't have the resources to mount, on such things as building management, multiple use, adaptive use, competition, design awards and citizen participation. All the experiments that can be done will enlarge the public's awareness of what is possible.

New Guiding Principles for Federal Architecture: GSA Response and Current Policies

Frank J. Matzke

The reason for promulgating the Guiding Principles for Federal Architecture in 1962 and restating them some 10 years later in a four part program of specific objectives is simply this: a quest for quality. The Public Buildings Service concept of quality and design encompasses function, cost, serviceability and user satisfaction—a cycle of considerations that provides new design program data from user responses, as well as post facto analysis of technical and budgetary performances.

Function: If a facility fails to meet functional requirements positive effort turns into waste.

Cost: Cost is reckoned not only in the expenditure of funds; we see time as a function of cost and time is money for government as much as it is for business. In an effort to capitalize on time, some government agencies, particularly the Public Buildings Service, have utilized a systems approach to the design and construction of new facilities and optimized the use of fast track and building systems through better management of the entire process. Fast track requires the overlapping of the design and construction phases of a project and allows independent and discrete portions of the construction process to proceed before complete development of design detail.

Serviceability: Design is not limited to the presentation of a three-dimensional composition fixed in time. Design for serviceability must anticipate and provide for compatibility with the surrounding environment, adaptability to functional and physical modifications and the ability of a building to live within a reasonable maintenance and operating budget.

User Satisfaction: Perhaps this is one of the most difficult considerations to assess because the government's

clients tend to be abstracted and anonymous. Current interest among government agencies in developing user profiles and evaluating user responses will do much to overcome the inclination to avoid design responsibilities by perpetuating the myth of "mass-man."

One of our current programs we've considered to be of the highest importance is that of energy conservation. We have issued two significant publications on energy conservation design guidelines for new and existing buildings. A new federal building incorporating many of these guidelines is now nearing completion as a demonstration project in Manchester, New Hampshire. Concurrently, a demonstration project for environmental conservation incorporating a sizeable solar collector has been designed and is now under construction in Saginaw, Michigan.

A program area that has relatively little visibility but has considerable impact on the performance aspect of design is that of life safety systems, particularly in tall buildings. The recently completed Seattle Federal Office Building has become a model for high-rise fire safety and its features are being duplicated currently in both public and privately constructed office buildings.

GSA is mandated by specific legislation to prescribe standards and to otherwise insure that physically handicapped persons have ready access to and use of federal facilities. We are currently engaged in the updating of performance standards to cover auditoriums, dining facilities, libraries, courtrooms, display areas and other special facilities not included in present standards. They will also address a wider range of disabilities than the present standards which concentrate primarily on the wheelchair-bound.

We work very closely with the National Endowment for the Arts on a program we call Art in Architecture. By congressional mandate we provide up to one-half of one percent of new construction funds for the express purpose of commissioning works of art to be integrated into our building structures, their landscaping and their interiors.

GSA has also been responsive to those ground swells in design that may soon break with considerable impact upon our federal facilities. They include the maintenance and preservation of historic structures, the adaptive use of existing structures, historic or otherwise, and multiple use or mixed occupancy in federal facilities.

Built in 1858 as the first Corcoran Gallery of Art, Washington, D.C.'s Renwick Gallery was a Civil War hospital, a U.S. Courthouse, and finally it was reopened in 1971, as part of the Smithsonian Institution, to house design exhibitions, crafts and decorative arts. Designers for the building's restoration were John Carl Warnecke and Associates and Hugh Newell Jacobsen and Associates.





(from top)

One hundred years of changing attitudes are demonstrated in the design of this series of federal hallways: Federal Court of Appeals Building, San Francisco, 1870, National Park Service office building, Santa Fe, New Mexico, 1939, San Francisco Federal Office Building corridor renewal, 1962, Los Angeles Federal Office Building, Charles Luckman, architect, 1972

'What a very little fact sometimes betrays the national character

Andrew J Downing, 1840



Social Scientist and Architect: The Collaborative Effort

John Zeisel, Moderator

John Zeisel, director of the Architecture Research Office of Harvard's Graduate School of Design, Robert Shibley, architect with the Army Corps of Engineers and Louis Gelwicks, president of Gerontological Planning Associates, presented their analyses of the users' view of architecture—social and psychological reactions to architectural spaces.

John Zeisel's office is developing information about visitor and worker responses to buildings. He showed a number of slides to point out the elements in a building that evoke visitor response including: entryways, lobbies, hallways, signing and lighting and discussed various factors that make these areas responsive to visitor needs. He also analyzed the needs of people working in these same buildings.

We've come a long way in understanding the elements of a work station, the kinds of things that people do, how they make themselves at home, and we've started to translate that into open landscaped cubicles with advanced technological furniture and hardware and that's a big step forward. But, we've also got a long way to go in really resolving how these things work and it's a matter of management as well as design. We've got to begin to design environments that accommodate needs for privacy and social interaction.

We've talked about the barrier-free environment. Usually, what you see is pictures of wheelchairs not being able to go up stairs or wheelchairs not being able to go through doors. My earliest recollection of learning about barrier-free environment was

a drawing of someone with crutches trying to stand at a urinal or get into a toilet stall. It's overwhelming, the way we really lock out the handicapped. It's an issue that research has found out a lot about and can find out more about in specific situations.

There is an attitude that says "You're spending public monies, it has to look bad." We've got people trapped in public housing, we've got people trapped in public buildings, we don't have to worry about them. I think we have to change our priorities to create buildings that are more humane, less hostile, more welcoming and more accessible.

Robert Shibley

The social sciences can offer significant assistance to those who control design and management by giving valid information on human and social requirements as well as user-manager values.

Questions of accountability—for whom or to whom and for what—are useful questions. Accountability is really a learning resource that can help us be much more responsive to users, to managers, to the political and organizational concerns that we're involved in daily and to the design professionals. Beyond our collective opportunity to be accountable there is opportunity to actually improve the social health of the people in the organizations we serve by the very way we do business.

In the process of problem seeking or programming, in digging to find out information that is design relevant, we also learn a great deal more about the organization we're with. The process can help management and working

level personnel communicate. A good design process can give managers an ear to the ground.

One method we might use to improve the state-of-the-art in architectural design is to record what we learn in the process of design, to seed that back into the same project, and to record what we learn in the activity of design in a very rigorous way.

We all have some kind of guidance manuals, but they are really not sufficient as learning resources. Most of them are made to make challenge very difficult in the introduction of new evidence and therefore revision is not genuinely encouraged. Not because it doesn't say in the back of the book, send me your recommendations for change, but because of the content of the book itself, and what it says and what it does not say about how the information got to be what it is.

I suspect that the organizations that are represented here have a similar problem with

guidance. In order to unfreeze this guidance, to develop some more responsive design procedures and to take advantage of the opportunities we're talking about, certain categories of information have to be present in all guidance.

We've got to give the people who use our guidance documents information about what problems we're trying to address with those documents. We have to describe the context the documents are appropriate for use in. We have to get on with the business of giving them the image that allows challenge and, we've got to give them the supportive evidence on the relative importance of the problem, the accuracy of the context description and the appropriateness of the solution or the tentative solution image.

As an architect involved in a reasonable amount of research, programming and planning, I've come to the conclusion that the architect has a minor role in the overall volume of decisions affecting design. Most design decisions are made on a typewriter, not on a drafting board. For example, to what extent do we acknowledge privacy and permit its use in buildings? The answer affects design considerably and I think we should really look on this and similar questions as design decisions.

If we're going to do our job, if we're going to interrelate a variety of sociological findings, research and concerns of people, we've got to have good facts.

In a recent meeting of the Environmental Design Research Association, a paper titled *The Design of Comprehensive Information Systems for Design* was given. It read

in part. . . if general information systems to facilitate environmental design are to supersede the growing collection of specialized programs and services, a better appreciation of the problems and possibilities of such systems is needed. A lack of theory to guide the design of comprehensive systems, the proliferation of more or less specialized and arbitrary high level languages, unintegrated data, inadequate capacity for describing relationships, the complexities of large-scale operating systems and the magnitude of the information problems posed by environmental design, have conspired to discourage, confound and diffuse effort."

The jargon of the social scientists and the semi-literacy among architects has been holding design back for about 20 years.

In an experiment in housing for the elderly, about 35 older

people were asked to develop what they felt would be an ideal apartment. We were trying in this experiment to get at the reasons people do things, what their priorities are, what their trade-offs are.

The result of the program is four plans, studio apartments with alcoves and all the furniture plotted. You suddenly realize that people don't use space the way architects design it. We've got to work with the behaviorist, use some of his input, and much of the research of the past 10 years.

Mr. Gelwicks went on to show photographs of a number of environments that he feels are socially positive. He concluded with the thought that a good public space, one that is attractive, comfortable and usable, is liable to be filled with people. In other words, we can learn best about design from the people who use it.

Caudill Rowlett Scott's Student Housing, State University College at Brockport, New York, was designed and constructed in 18 months by the "team method." Completed in 1972, this complex was funded by the Department of Housing and Urban Development and the Dormitory Authority of New York State.



The notion that *an* architect designs a building is a popular misconception. People who should know better, like architectural writers, critics and historians, can only conceive of one person ever designing a building. A wealth of ignorance about how a building is designed prevails within and without the profession.

The reasons for this are: writers know very little about the design process; or they can't explain a team; or they believe that the Renaissance man still exists. The fact is: One person can't design a building. Another: The prima donna is dead. The new genius is the team.

Architecture? What's that? Ask ten architects, get ten different answers.

Now let me see if I can clarify what we think architecture is and how buildings are designed these days, based on the experience of the CRS (Caudill Rowlett Scott) team with a 28-year track record of literally hundreds of buildings. Not only do we design buildings by team, but we evaluate their performance by team—with the users on the team. User involvement may be the key to successful buildings. But user involvement can't substitute for great designers. But architecture is too important to be trusted to one person who wants to express his urge for creativity.

One man (or woman) can't hack it alone. Like doctors, there are scores of different kinds of architects. Designing buildings is a complex operation. The CRS-designed concert hall in Houston required 13 3/4 man-years, involving 61 different people getting it out in 14 months. The Manhattan College required 30 man-years and the assistance of scores of different specialists to produce it in 12 months. CRS is now working on a project that will take 300 man-years to design with hundreds of specialists involved.

Only a few years ago, architectural profs were telling their students: "Take your time. Mies van der Rohe took ten years to design a house. The more time spent on design, the better it will be." If it took ten years to design that house today, its cost would more than double the original budget. In this day, simply to keep up with inflation requires uncommon speed during the design and construction process, and only a team can do it. But it's not only that. Owners are demanding shorter design and construction time. They don't want to wait. That's why building systems and systems buildings—fast tracking and construction management and the like—are coming in so strongly. And when you get into systems buildings, more people are involved in the design/build team of teams.

The essence is this:

1. **ARCHITECTURE IS A GOAL.**
2. **BY TEAM IS THE MEANS TO ACHIEVING THAT GOAL.**

If "architecture" is the goal, then what is "architecture?" We're back to the muddle. What meaning should we use? Our most recent notions of what those of us who practice by team think architecture is:

Architecture is a personal, enjoyable, necessary experience. Man perceives and appreciates form and space from three distinctly different but interrelated attitudes: of the physical being, of the emotional being, and of the intellectual being. When architecture does happen to this person, an aura seems to emanate from form and space that evokes a response by fulfilling his physical, emotional and intellectual needs.

The goal is to design buildings which possess architecture. If architecture is "personal expression," a team would not only be unnecessary, it would get in the way.

But architecture being "a personal experience," with the user being the final judge of whether a building possesses architecture, a team is needed—with users on the team. The team's job is to design the forms and spaces in such a way that the building and the user fall in love with each other.

So one notion is this: If the users are to have a building that possesses architecture (by our definition), it's better to design the building by team action.

In CRS we operate on two theories relating to team action: The Theory of Product and the Theory of Process.

The Theory of Product—product meaning anything from a group of buildings to a single building to a part of a building. We state the Product Theory this way: architecture has a better chance of happening if function, form, economy and time of the product are considered as one.

The Theory of Process goes something like this: Since every architectural task requires three kinds of thinking/doing relating to management, design and technology, the design task can best be done by a team led by a troika—a manager, a designer and a technologist. The Process theory evolved over a 15-year span of practice. It's sound. Our designers at first were reluctant to share honors awards with managers and technologists. Of course, they were delighted to share responsibilities and liabilities. Today the most competent designers in CRS are pleased with this trilateral leadership arrangement. They no longer need to be prima donnas, and the managers and technologists are no longer second-class citizens.

Interior Design Industrial Design

- 22 Opening Remarks
M Elliott Carroll



M. Elliott Carroll, Executive Assistant to the Architect of the Capitol, was formerly a partner in the architectural firm of Vincent G. Kling and Partners, Philadelphia, Pa. From 1960-70 he served on the executive staff of the American Institute of Architects, Washington, D.C. While at the AIA, Mr. Carroll served as Deputy Executive Vice President and administered the publication of the 6th edition of *Architectural Graphic Standards*.



William L. Pulgram is President of Associated Space Design, Inc., Atlanta, Georgia. In 1958 he was appointed Associate and Chief Interior Designer at Finch Alexander Barnes Rothschild & Pascal, Atlanta, joining Associated Space Design as Executive Vice President in 1963. Mr. Pulgram is a recipient of a first prize for architecture design from L'Ecole des Beaux Arts, France.



Dennis Green, Director of the Western States Arts Foundation's Design Program, was formerly Director of Interior Architecture and Design Programming with James Sudler Associates, Denver, Colorado. Previously he had been a principal in his own firm in Seattle, Washington. His former positions include responsibility for design research with General Services Administration and teaching at the College of Human Ecology, University of Maryland.

- 26 Dialogue: Interior Design Excellence
Office of the Comptroller of the Currency
Washington, D.C.
W.A. Howland
Jeffrey H. Miller



C. B. Walk, Jr., Regional Administrator, Federal Aviation Administration (FAA), is responsible for the agency's activities in Idaho, Oregon and Washington. Since joining the FAA in 1960 he has been Chief, Aircraft Management Division, Flight Standards Service, Washington, D.C.; Chief, Flight Standards Division, New York, Manager, FAA New York Area Office, and Deputy Director of the Aeronautical Center, Oklahoma City.



Sam Sloan, President, People Space Architecture Company, has completed numerous architectural and environmental design projects including the interior open office plan for the Federal Aviation Administration's Seattle regional headquarters. Prior to forming his own firm, he completed various projects related to urban planning and institutional design, including multi-media lecture and research laboratory facilities.



Walter Kleeman, Jr., Associate Professor of Interior Design at Western Kentucky University, is also Co-chairman, Environmental Research and Development Council of the American Society of Interior Designers. Dr. Kleeman serves as ergonomic consultant to architect Sam Sloan for the design analysis of the Federal Aviation Administration's Northwest Regional Office, Seattle, Washington, and the Southwest Regional Office, Los Angeles, California.



W. A. Howland, Jr. is Deputy Comptroller of the Currency for Operations Planning. Since joining the Comptroller's Office in 1968, Mr. Howland has served as attorney-advisor for antitrust litigation, Administrative Assistant to the Comptroller and Deputy Comptroller for Administration. Previously he served in the Office of the Judge Advocate General of the Air Force for 16 years.



Jeffrey H. Miller is a partner in the interior design firm Hunter/Miller & Associates, Alexandria, Virginia. From 1966-69 he served as the Environmental Design Coordination Officer for the Chesapeake Division of the Naval Facilities Engineering Command. During this time, Mr. Miller was responsible for many innovative projects and was awarded the Navy Achievement Medal by the Secretary of the Navy for his design work.

One of several GSA feasibility studies of air-supported structures as environments for federal offices and public spaces



Opening Remarks

M. Elliott Carroll

Excellent office environments contribute to efficiency of communication, employee morale and productivity and enhance management coordination. This afternoon, we're going to be talking about some case histories that illustrate these points. The Federal Aviation Administration offices in Seattle and the offices of the Comptroller of the Currency in Washington, D.C.

Mr. Carroll introduced the search for interior design excellence by showing examples, in the Capitol, of untenable office conditions.

Before we see the good ones, I'm going to give you one of the saddest case histories I have discovered

since I arrived at the Capitol a year and a half ago. The interior of the Capitol building was designed by a physician, Dr. William Thornton. Because he didn't know much about building design and construction, he selected the second runner-up in the competition to do that work. There are two Senate Office Buildings: the old Russell Senate Office Building and the Dirksen Senate Office Building occupied in 1961. In the Russell Senate Office Building allocation of office space was based on the size of the constituency the Senator represented. The Senators from Delaware and Nevada, for example, got four or five

rooms. The Senators from California and New York got seven or eight.

The average square footage per person in these offices is 67. I don't think there's a junior high school anywhere in the country that has a secretary's office of less than 150 square feet. Senate clerks have the same problem. Because of these blatantly inefficient situations, the Architect of the Capitol has obtained an appropriation to conduct an experiment in the next year and a half in the Senate offices, to apply the lessons of interior office planning that you'll be hearing about this afternoon to that long neglected situation.

Design Awareness

William Pulgram

We will address ourselves here to the problems of the administrator, the person responsible for the operational efficiency of an agency, a department or maybe just one small segment within an agency. When we ask the administrator what problems he or she is having in achieving an efficient operation, the concerns voiced usually have to do with people: their relationships to each other and to their supervisor, the type of work they do, their personal problems such as anxieties, tensions, personal satisfaction, opportunities, salaries. Way down in the list of major concerns the administrator mentions the physical work space.

All the concerns enumerated are usually couched in terms of psychological needs of people or in terms of how many desks, chairs, pieces of paper and square feet of floor space a group needs to perform its assigned task. What is rarely discussed is the quality of the physical work space. We want to illustrate that there is a critical relationship in the interaction of people and physical space. We hope to show that appropriate physical environment can contribute to the solution of the people-related problems and

concerns of the administrator. In the following enumeration of administrator's complaints, I do not mean to imply that all federal government offices are ineffectively designed. There are many very appropriate installations, but more often than not we hear the following:

1. *Limited Agency Input*
2. *No Personnel Involvement*
3. *Poor Space Utilization*
4. *Obsolete Furniture and Equipment*
5. *Inadequate Building Systems*
6. *Insufficient Maintenance*
7. *Too much Red Tape and Time*

How can you take care of your needs?

1. *Maintenance*

Keeping existing spaces and facilities in good repair is the simplest form of problem solving; the task is to preserve the original intention of the design.

2. *User Input*

If there is going to be a realistic approach to provide a humane working or living environment for people, there has to be a comprehensive

analysis of what the needs of the organization are and the individuals within it.

3. *Design Know-How*

What we are talking about is the use of design professionals.

4. *Hardware*

Earlier concepts of office planning included full height walls, doors and the conventional equipment of desk and files. The uses for certain types of equipment have been reevaluated. The inflexible full height wall gives way to the movable panel that might provide a vertical work and storage surface in addition to visual and audial privacy.

5. *Building Systems*

Architectural technology is being utilized to provide a container appropriate to the changing patterns of human organization. Long span structures allow greater bay spacing and even column free space. Technical and electrical systems have been designed to allow for relocation and change. Open space planning has provided the potential for more economic and effective distribution of light and air conditioning.

Mr. Green's remarks centered around participation of the user in the design of the environment. The Federal Aviation Administration Seattle office is an excellent example of the way a design team works.

Users often don't understand what is happening to them in the design process because they are not involved. Involving them reduces their anxiety and helps them understand how to adapt and how to enjoy the end product. Design participation produces physical design more related to the balance between desired values and

actual values. Participation creates a setting in which a total range of value preferences can be uncovered and in which a point of view can be a positive force. Participation provides a more democratic environment and more emphasis on individual responsibility. Participation dispels the idea that nobody cares about how I feel and therefore I'm not worth very much.

If people are allowed to select the things that feel best to them, they will pick a color that they like, and they're going to

find that the things they choose are better suited to their needs than they would be if someone else selected them.

Participation provides a logical framework in which interdisciplinary actions can compliment each other rather than contend with each other. In this case, our ideas are open, we exchange ideas and we all become better professionals, better facilitators at our jobs.

C. B. Walk, Jr.

Very briefly, I'd like to talk about how I got into this project. Back in the late 60s, the President decided that he would like to create federal regions in various locations across the country.

One of the first things I did in looking around for a headquarters structure was look at the new Federal Building in Seattle. It is a beautiful building but, I was happy to learn, it was already oversubscribed. Why? Because I didn't want to have a regional headquarters, particularly involving aviation, located in the city center. Access to our customers would be difficult and our employees would have tremendous problems in finding parking, and we try to be an employee-oriented organization. For example, inside parking costs \$45 a month. For a married man or woman with children, that buys a pretty good insurance policy.

Now, I had always taken the position that if I had anything to do with the construction of a regional headquarters building, I wanted it on an airport and I wanted it so arranged that the people we serve, our customers, could land their aircraft and park right in front of the building and come in, do their business and be on their way. I also wanted to have good public transportation

from the city center particularly, so that our minority and our elderly employees would have good public transportation access to this building.

After the building design was completed, we started thinking about the interior design. I have always felt that people spend more time on their job than any one thing they do in their life except sleep, and I think management has a great responsibility to create an environment that will make their working conditions pleasant and productive.

About the only thing I was certain of was I wanted to have our employees involved to the maximum extent possible in the design of their building. I also wanted to have experts design the interior. We organized various employee committees and looked at all types of designs. What came out of these committees and our discussions was the concept of open landscape planning. Since I was impressed with what I had observed GSA accomplish in the Seattle Federal Office's interior design, we contracted with them for design services, and they in turn sub-contracted with People Space Architecture Company.

Now, the first meeting that I had with the GSA representatives left me walking around in

circles and, being a 57-year-old conservative, I wasn't at all impressed with those bearded, long-haired young men who came to my office. But it wasn't long until I realized that I was dealing with very talented people.

One thing I mentioned earlier was employee involvement. We had a lot of it in our whole operation. We tried to get our employees involved not only in our routine business, but in our decision making. I did not abdicate my responsibility, but I did try to get as much input as possible from my employees.

The building cost \$2.5 million, we spent \$166,000 on new furniture, \$19,000 on equipment, \$3800 on refurbishing some old furnishings. The base rental is \$305,645, we have janitorial service, with \$73,800 for utilities, which equals out to \$5.42 per square foot. We felt this was a very economical square footage charge.

On July first of this past year when GSA's standard level user charge went into effect and they started administering our lease, the cost went up to \$9.42 per square foot.



(above)

Federal offices are often cluttered and lacking in essential concern for the people who use them

(below)

The office of the FAA's Northwest Regional Headquarters, Seattle, Washington, designed by People Space Architecture Company of Spokane, is characteristic of the new use of open planning in federal buildings



Our work started with a week long design team visit to FAA's existing environment—talking, looking, discussing, planning.

The methods of investigation were the questionnaire, interviews and observation. We held sessions with each individual and in groups of 20 to 25 over a period of two weeks. We explained what work environments are and asked them to tell us what they thought their environments were all about.

Consequently, as we worked over the next three years with these same people they could understand the questions that we were asking and they could intelligently answer them.

We interviewed every single person working in the FAA regional offices, 285 of them, and charted our interview analysis on a pre-designed data sheet. Our comprehensive questionnaire regarding personal preferences, individual idiosyncrasies and group requirements was given to each individual.

The answers were compiled and computer synthesized to develop a graphic representation of individual and group needs. This is a very interesting matrix. It does two things:

it identifies when an individual does not need a certain item that everybody else in his work group does need; and, it also identifies when an individual needs something that the rest of the group does not need.

We set up a mock environment in a hangar at Boeing Field to reflect the eventual space design. We turned it into a furniture store in essence. Each and every person in the FAA came in on a scheduled basis to shop around and talk to our designers and select what he wanted.

We gave them the advice that we could, particularly when they asked for it, as to how they should orient their particular work station to meet their needs. Each individual made all of his own color choices, selected his own equipment, the amount of it and the type. An individual decision data sheet was recorded for every individual now numbering 320 due to a rather dynamic growth of the agency during our efforts. Group relationships, territory and travel compromise were developed based on research data and the experience we had accumulated in our observations of the system.

Finally, we used what might look like an archaic tool to

put this all together. We actually drew up each individual's requirements to scale, put them on a sheet and glued them up with rubber cement. It took a lot of time but the eventual product was a drawing. When the drawing was sent to Washington, D. C. for evaluation by the main headquarters of the FAA, people who had worked in the Seattle office recognized people by the chairs, desks, layouts, and they recognized groups by their orientation, without the labels.

It should be mentioned at this point that the aesthetic that we created was a heterogeneous aesthetic solution, something that had many and varying different color combinations and contents. That heterogeneity created what the people themselves thought of as a residential value environment as opposed to a homogeneous solution that involves a very carefully controlled color scheme designed by a designer.

Walter Kleeman, Jr.

My view of the FAA project is an ergonomic one, the imminent interface between people and equipment, between the user and his environment. The consequences of what happens in this interface are usually very low key. The backache is slow in coming along, it doesn't hurt very much at first and it doesn't cripple anybody for months or perhaps years.

The cause of the backache may be relatively simple: a chair with low lumbar support, or a chair that is not adjustable in a range wide enough to accommodate the people who use it. Or, if the seat height won't go low

enough, legs dangle, pressure is exerted on the blood vessels in the bottom of the upper leg and legs may increase in size causing varicose veins.

As you might suspect, there is plenty of literature published by the U. S. government about the design of chairs, but unfortunately, the available chairs on the market don't reflect that information.

We made sure that the tops of the work surfaces in Seattle were not glaring by specifying matte or dull surfaces that reflect between 30 and 50 percent of the light that hits them. If the top color is too dark, the line of contrast

between the white paper and the top of the desk will be very strong, so strong that your eyes are attracted to the contrast line instead of to the paper you're supposed to be reading or writing upon. This strong contrast line becomes a distraction in your work. What happens, then, if the work surface top is too light? The contrast line tends to completely disappear. So you need to specify the reflectants so that the ergonomic limits of 30-50 percent reflectants could prevent any one of these problems.

This case study demonstrates how an administrator and a designer can join together to create a fine, workable result.
Mr. Howland: This agency was created in 1863. The old facility consisted of long, dirty corridors, cluttered work stations, a totally inadequate design to handle the appropriate tasks.

The new facility of the Comptroller of the Currency in Washington is 150,000 square feet. A period of 18 months was spent on design and actual construction.

The new office at 490 L'Enfant Plaza is rather unique in that it's a mixed use facility. It is leased by the Comptroller. The building has a hotel on the top three floors and there are 8 floors of office space, two are occupied by the Comptroller. When this project began I didn't know about office furniture systems and all of these things that were being recommended to me. I was open-minded, but at the same time, I had to be very pragmatic and I wanted to talk to the actual users. I took copious notes and have them available here for our present use.

Mr. Miller: We'd usually discuss the merits of one system versus the other. While we were doing this, we were also discussing matrixes we were applying to the organization, who needed to be near whom.

Mr. Howland: We learned so much more rapidly, I think, than we could have otherwise, because we were in the designer's arena. Jeff Miller was there with his staff, research materials and files—everything we needed to answer questions.

Mr. Miller: We considered true life cycle costing and that led to certain design decisions. We looked upon design as a problem solving arrangement. Movable walls and metal partitions were chosen because we knew that

we could rearrange offices over a weekend, not interrupting the work.

Mr. Howland: Our design process was carried out in four separate phases: conception, design plan, design implementation and evaluation.

Mr. Miller: Everything except the Knoll office system was bought from the Federal Supply Service—chairs, carpeting, accessories. This just shows that the federal supply system isn't necessarily a disaster, but you do have to know how to use it creatively.

The lighting fixtures we used were not in the building standard. We ended up using nothing that was offered in the building standard because we found everything else more cost-effective. We selected a light fixture that in fact cut energy consumption and that represented an annual saving of \$18,000 in the electric bill.

One of the other design problems we were faced with was the ever-present one of who sits at the perimeter with a window. You can imagine, with a 60,000 square foot floor, the ratio of windows per square foot of usable space is rather low and we decided that there should be equality of treatment for everybody. We tried to develop a scheme in which we borrowed lights for interior offices. We also provided very wide spaces between enclosed offices so the light would come streaming in and be shared. We opened up the fire stairs to make them communicating stairs, instead of locking them. Finally we designed a brochure that outlined all information about the new facility: the neighborhood, security, how to get there by bus, parking and then, very clearly defined, the role that was being played by the agency in developing the space and, generally what that space was going to include.

Mr. Howland: We have about 307 people (employees) now in Washington. Managers told me their people were happier, that they even dressed better! We have been able to look at areas that have been used for a year now and they are still sparkling. People are obviously proud and are taking care of their spaces.

The last thing I'll talk about in the design solution is the central conference facility. As most administrators know, everyone needs a conference room, so they say. And in our survey, we got the same result. After evaluating the true needs we created two official conference rooms. Both of them were designed so they did not need any audio-visual speaker systems. One has no doors, is glass-enclosed, and right next to the library. It's frequently used and is scheduled.

We did a study on relative costs for developing our space. We have a lease option extending through a total of 30 years. The cost of this development comes out at less than one half of one percent of what we're going to spend on those people during that period. So as far as we're concerned in our evaluation, it is very much worth it. We announced a graphics program a couple of months ago and we're beginning to implement it. We find much less resistance to that program than initially confronted the office design program. I believe it is because our people have learned what good design is all about.



Four exhibitions were shown at the Assembly including *The Design Necessity*, an exhibit prepared for the First Federal Design Assembly. The exhibition illustrates design performance criteria in graphics, architecture, interiors and environmental planning.

Visual Communications

- 30 Overview of the Federal Graphics Program**
Jerome H. Perlmutter



Jerome H. Perlmutter is Coordinator of Federal Graphics, National Endowment for the Arts. Mr. Perlmutter was Chief of Publishing for the State Department when he was detailed to the Endowment in 1973 to implement the Federal Graphics Program. In 1970, at the request of the White House, he conducted a comprehensive study on the impact of visual communication and the aesthetics of graphics in the federal government.

- 30 The New Federal Graphics Labor Department Case Study**

John W. Leslie
John Massey



John W. Leslie has served as Director of the Department of Labor's Office of Information, Publications and Reports since 1959. In his current position, Mr. Leslie directs all public information activities of the Labor Department and advises the Secretary of Labor on public information aspects of Departmental programs. Mr. Leslie has served as press officer for the Bureau of Apprenticeship and Assistant Director of Information.



John Massey is founder and Director of the Center for Advanced Research and Design and Director of Corporate and Marketing Communication for Container Corporation of America. He recently designed the Department of Labor's new graphics program. Over the last fifteen years, Mr. Massey's designs have received wide recognition in this country and abroad. In 1967 he was named Art Director of the Year by the National Society of Art Directors.

- 33 Symbol Signs: Department of Transportation's Signage System**

William R. Myers
Thomas H. Geismar

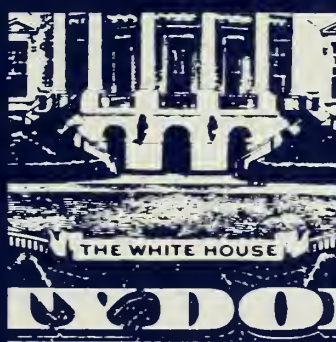
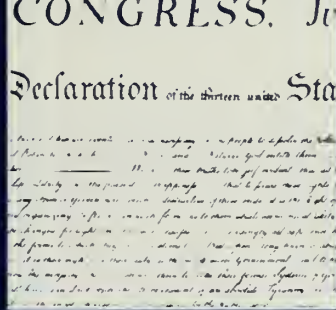
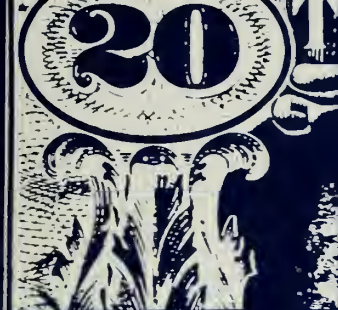


William R. Myers is Deputy Director of the Office of Facilitation, Department of Transportation. Before joining the Department, he was responsible for a wide variety of facilitation activities in the Department of Commerce, first with the Maritime Administration and later with the Bureau of International Commerce. Prior to government service, Mr. Myers served as Special Assistant to the President and Vice President of Fruit Growers Express Company.



Thomas H. Geismar is a partner in the graphic design firm Chermayeff and Geismar Associates and also a partner in the architectural design firm Cambridge Seven Associates. He is especially well known for designing numerous corporate trademarks and symbols, and major institutional exhibitions. Mr. Geismar's work has been exhibited throughout the United States and Europe, as well as in Russia, Japan and South America.

These images are from "This is the Federal Government," a six-screen slide/sound presentation depicting a historical survey of federal graphics, produced by Intermedia Systems Corporation.



Overview of the Federal Graphics Program

Jerome H. Perlmutter

Agency administrators expressed interest in the Federal Design Improvement Program through a number of questions:

Question: How do we select a design consultant?

Perlmutter: If Westinghouse and IBM want a design consultant, they survey the field and pick one and that's it. But the federal government is a different story, and I'm sure maybe the states are the same way. We, in the Endowment, have a register of over 250 designers of various specialties. Now let's say department X wants to go into the program. We will be glad to provide them with the names of three or four expert firms who can satisfy or solve a particular problem. When an agency is ready to send out bids, they are obliged to also advertise nationally in the *Commerce Business Daily*, published by the Department of Commerce.

Now this will bring in firms who may not know about the requirement. So what happens then is they send out the bids to these three or four firms, others come in based upon the advertisement, and the agency, in a selection process, may have about a dozen to choose from. A technical committee is appointed within an agency; they review everything, and finally come up with a selection. But let me make one thing clear. In the federal government, the job doesn't go to the lowest bidder. It goes to the most qualified firm that the agency perceives can do the job.

Question: Who evaluates agency graphics?

Perlmutter: That is a beautiful part of the program. When I joined the Endowment, three years ago, I knew I would need outside assistance for this area. A lot of designers and communicators asked me

what they could do to help the government. And I said, "Well, you can serve on a panel." And they said that they would be very happy to serve and do anything to support the program. Let me mention some of the people we have on the panel. We have the head of design of Cooper Union, Pratt Institute and Rhode Island School of Design. We have the head of design of IBM, Exxon, Westinghouse, CBS. We have a mix between the academic and the commercial, we have heads of design studios, and we also have about a dozen government members. We have 50 panelists in all, and draw upon five or six for any given panel meeting.

The New Federal Graphics Labor Department Case Study

John W. Leslie

In 1957, the Department of Labor's budget was cut. This gave me the opportunity as then Deputy Director of Information, to consolidate all graphics production as an economy measure. The results of this consolidation provided one of the essential elements that I believe is needed for a successful visual communication program. A well staffed centralized graphic production unit, large enough to support the various graphic talent necessary for a viable program, is essential.

The last ingredient, and the most vital one in running an effective graphics program is executive support.

We had organization, a good staff and executive support, yet our graphics program was lacking. It was no surprise when the panel of experts set up by the Arts Endowment to review our product suggested that we have an outside expert take a look at what we were doing and make recommendations for improvement. The panel found that while there

were numerous outstanding examples of graphic product, there was no common standard or system and each piece of graphics work was created independent of all others. In other words, we invented the wheel every time a new graphics product was created. If the new design program accomplishes nothing else, it provides a ready answer to all the would be designers we have in the program areas of the department. After the panel of the Endowment took a look at our material and pointed out its shortcomings to us, we put out invitations to bid. We selected as the contractor the Center for Advanced Research and Design, located in Chicago, to review the department's work and to come up with some solutions to our problems.

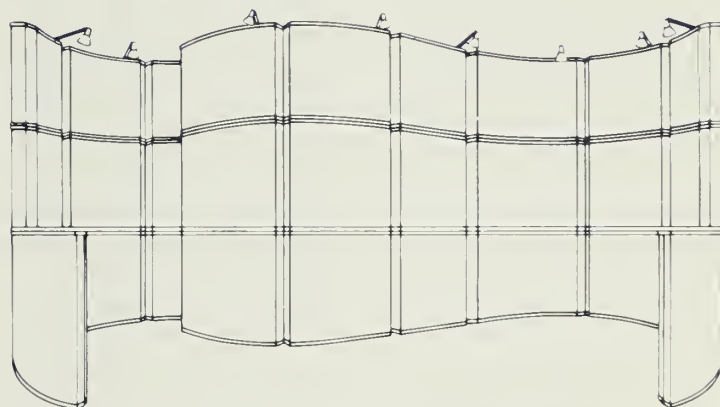
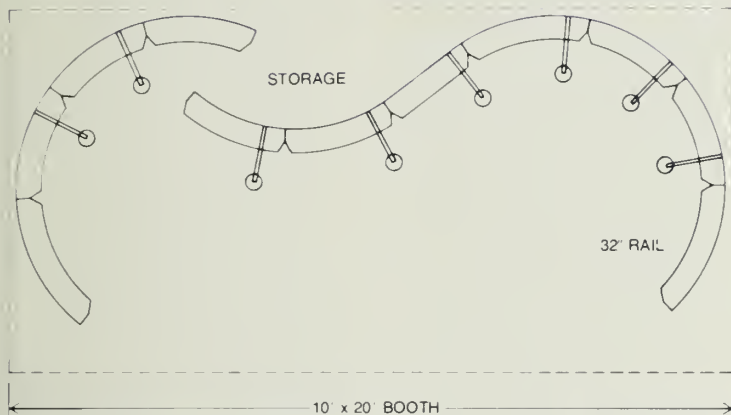
Though not all department managers and members of the graphics staff are sold on the new system, it is a vast improvement over our former way of doing things, and I would point out also that the program has received the full

support of past and present Secretaries. There have been substantial savings of time and money in the design and printing of material, which enables us to obtain more product at the same cost. And the product itself is better. The Public Printer estimates that our new system of standardization of publication sizes, papers and inks would save about 15 percent in printing costs. We have experienced a similar reduction of approximately 15 percent in the time spent on the design development of graphic materials. When you consider the Labor Department spends over one and one-half million dollars a year in all types of visual design and another five and one-half to six million dollars a year on printing, the magnitude of the savings in the new system is clear. It has enabled us to get more product for our design per printing dollar.

U.S. Department of Labor

align

Labor Offices
in the United States
and Canada



John Massey's graphics handbook for the Department of Labor contains guidelines for communicating in many different ways. The Department's new mark and its traditional seal are used in a number of ways; a flexible exhibit system is shown in one of its many possible configurations; and sample publication grids are an important part of this exemplary design guide.



4300-4385



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Our assignment from the Department of Labor was to evaluate the graphic aspects of the department's communication program, and to recommend procedures by which graphics could help to more effectively facilitate the department's overall communication objective. Our first task was to prepare a written program including a statement of objectives, a schedule of tasks to be performed, a time schedule, and a cost schedule. The program of procedure was organized in five chronological steps or phases: 1) The briefing—principals within the department described the department's purpose within governmental structure; the department's overall objective with specific attention to the function of information communication performed in achieving these overall objectives; the organization of the information communication staff within the department and its various agencies; and the pragmatics of current procedures regarding the planning, creation, and production of printed and related communication material. 2) Data collection—we collected a cross section of the department's printed and related material produced in the previous two years, plus research reports and studies previously undertaken regarding the department's graphic or communication program. 3) Analysis—we were able to determine if the graphic content and visual character of the department's material effectively supported the department's objectives delineated in phase 1. The disparity between the department's reality and purpose and its visual impression was documented and this disparity was reviewed by principles within the department. 4) Design function—the purpose was to develop graphic solutions which would bring the visual impression of the department closer to the

department's current reality.

Now the reality of today's Department of Labor centers around the function of enforcing statutes designed to advance the public interest by promoting the welfare of wage earners of the United States, improving their working conditions and advancing their opportunities for profitable employment. In order to fulfill its charge, the department is organized into a series of offices which function to administer specific department programs. The administrative offices which administer programs with high visibility in this regard are the Manpower Administration, Labor Management Services Administration, Employment Standards Administration, Occupational Safety and Health Administration, and the Bureau of Labor Statistics. The prime objective was a development of a comprehensive graphic system for use by the department totally.

Now, in addition to organizing the proposed graphic system, consideration was also given to providing the department with uniformity of identification, a standard of quality and a more systematic and economic template for publication design. In a closer relationship between graphic design as a means and program development as an end, the proposed graphic system would become an effective tool in assisting the department to achieve its program directives. Now, a viable design solution must clearly and strongly support this information dissemination. The content of each printed piece must be immediately legible and understandable. The piece must be recognizable as having emanated from the United States Department of Labor. The inherent character of the design itself must communicate that the content of the piece is important, up to date, alive, and vital.

A Department of Labor communication design

element (or logo) was developed to appear on department communication pieces in combination with the title. With consistent use this element will instantly communicate that this particular piece is from the Department of Labor. A unifying element running through all the publications of the department, its agencies, and bureaus, this design element does not replace the official department seal.

The fifth phase of the program was validation. At this point we worked closely with the Government Printing Office to establish standards for sizes, typography, grid systems, paper specifications and color. Our objective was to arrive at perhaps no more than four to six sizes for printed material, two to four type faces, standard colors, grids and paper. Tremendous economy could be realized with the adoption of these standards and yet they impose no limitation on the creativity of the department's designers, editors, and information officers. In fact, such standards would allow the staff more time to concentrate on the creative aspects of their publications because the mechanics were predetermined.

After the concept was validated by applying it to select upcoming projects, the final phase was implementation. At this point, a comprehensive design standards manual was developed and produced and today this manual is beginning to function as an integral part of the department's overall communications operation.

Symbol Signs: Department of Transportation's Signage System

William R. Myers

The Department of Transportation's symbol signs program is intended to help the average traveler and even more extensively the average pedestrian, find the way to and through transport terminals and other large public buildings. The need is for signs that are clear, uniform, and easy to comprehend. This means, above all, signs that surmount the language barrier. With the growth of international travel, many visitors find themselves in strange, confusing surroundings not knowing the country's language and uncertain of where to go or how to obtain help. But this is not all. With the growth in population and increasing contacts between federal, state, and municipal governments and the citizens they serve, clear and comprehensible signs are needed in every important public building. The solution is symbol signs, symbols that place a heavy premium on design excellence.

The proliferation of diverse, uncoordinated and often confusing symbol systems was the major influence on our decision to develop a symbol system that could be adopted for government use on a national basis. The average pedestrian could not be expected to recognize and react properly to such a bewildering variety of symbols. An effort to standardize was necessary.

From the very beginning the Department of Transportation sensed that for any program to be productive, it should have four main elements: 1) consultation with a representative group of advisors; 2) engagement in the program of the broadest possible range of professional experience and skills in the fields of graphic arts and industrial design; 3) design and testing in accordance with professional criteria and techniques; 4) submission of the resulting symbols to the recognized standards-making organization

in the United States, the American National Standards Institute, and for ultimate submission to the International Organization for Standardization.

First, to begin the consultative process we held a series of exploratory meetings over a period of almost three years. To these meetings we invited experts from the federal government, from the transportation industry, and from fields of graphic arts and industrial design. We drew from their expert knowledge a wide range of ideas and opinions about the merits and drawbacks of existing sign systems and how we could go about developing a sound and workable system. To this end we formed the Advisory Committee on Transportation Related Signs and Symbols to furnish advice, guidance and oversight.

We wanted the broadest possible spectrum of professional advice, experience and skill in the field of graphic arts that could be found in this country. To obtain it we went to the American Institute of Graphic Arts and took the unique step of entering into a contract with AIGA for the first phase of our program.

The General Services Administration has designated ten installations in the United States that will cooperate with us in the testing procedure. Dulles International Airport has agreed to be a showcase for our symbols. It is installing them and will assist in field testing during peak traffic hours. At least four major bicentennial committees, those for Boston, New York, Philadelphia, and Washington, are using the symbols at their various sites and events and at related transportation facilities.

The object always has been to develop a comprehensive system of transportation related passenger and pedestrian oriented symbol signs. The basic group of 34 is the

vital beginning. To assure a well rounded system, however, between 20 and 30 additional symbols will be needed. Work is to go forward on these symbols simultaneously with the development of the testing criteria and methods. The additional symbols ultimately will be subjected to the same testing and evaluation and modification as the basic group.

When testing and evaluation are completed, the system will be presented to the International Organization for Standardization. I'm inclined to think that their acceptance as an American standard is the most important single action that could be taken to guarantee wise voluntary use of these symbol signs.

The federal government is in the best position to act in support of uniformity and standardization. This fact, even when taken alone, argues for active federal leadership.

Public Services

Telephone
Mail
Currency Exchange
First Aid



Lost and Found
Baggage Lockers
Elevator
Toilets, Men



Toilets, Women
Toilets
Information
Hotel Information



Taxi
Bus
Ground Transportation
Rail Transportation



Air Transportation
Heliport
Water Transportation

**Concessions**

Car Rental
Restaurant
Coffee Shop
Bar



Shops

**Processing Activities**

Ticket Purchase
Baggage Check-in
Baggage Claim
Customs
Immigration

**Regulations**

No Smoking
Smoking
No Parking
Parking



No Entry



The AIGA (American Institute of Graphic Arts), which was founded in 1915, is probably the closest thing we have to a national graphic design organization. To my knowledge, the symbols project represents one of the first times that the government has contracted directly with a national design organization for creative services. And it seems to me that while it certainly doesn't guarantee better results, there are advantages to both entities from such an arrangement. For the government, it lends a certain amount of validity to the recommendations, and that's undoubtedly useful to the government in implementing the program. For the design society, the association adds a certain *raison d'être* to its existence and, in this particular project, allowed normally competing professionals to work together on a common goal.

There were already so many symbol systems throughout the world that we didn't feel we could justify drawing up yet another new group with a distinctive logo. It seemed more reasonable to review all the designs in existence, to select those concepts that seemed most effective and then to redraw the particular designs as was needed in order to produce a system with graphic unity. Now that's a somewhat unusual approach for designers to take. In addition all designers disliked the idea of design by committee. But the circumstances again precluded the AIGA from selecting any one member or any one firm to undertake the project on its behalf. AIGA is made up of practicing professionals and educators and has a small administrative staff so it would have to go to its membership to perform creative services in a project like this. Therefore, a committee was selected. The committee consisted of Seymour Chwast, Rudolf de Harak, John Lees, Massimo Vignelli and myself

as Chairman. The latter four of us are all designers and we all have considerable experience in developing symbols and developing signage systems. Seymour Chwast, an outstanding illustrator, was chosen because we felt that the drawing or the depicting of figures and objects was a very important part of our task.

This sounds like a lot of pastry chefs to make a pie, but actually our idea was that we would decide what the pie was going to be and then we'd hire another pastry chef to actually make the pie and we would taste it and be the judges of it. In addition, we hired a young designer husband-wife team, Don and Karen Moyer, to act as coordinators of the project and to do the research that was necessary.

The first task was to gather together examples, manuals and research from around the world, and to organize the material into comparable formats so each could be properly evaluated. Eliminating theoretical or experimental systems we compiled documentation on 24 symbol systems in actual use in various parts of the world. They ranged from international systems, such as the IACO group or the International Union of Railways to national standards as those for the British, Australian, Canadian, German airport authorities, to local facilities, such as Seattle-Tacoma, and the various worlds fairs and the Olympic Games of recent times.

All symbols, from every system, were reduced to the same size, approximately one inch square, and organized in a fixed sequence. At the same time the Department of Transportation task force developed a listing of the most important message areas that were to be symbolized. These were grouped into categories. We then organized all the existing symbols into the same individual message areas.

We decided that the symbol concepts should be evaluated

in two different ways. First, by the committee members individually and then in group discussion. Each committee member was given a ballot for each message area. Using the inventory pages as a guide each of us privately rated every individual symbol in the collection. Using a scale of 1 to 5, each symbol was rated on its semantic, syntactic, and pragmatic dimension or in plain English, is the meaning clear, does it work as part of a system, is the drawing legible?

We also prepared a verbal analysis and recommendations for each message area. This was then used as a brief to be followed by Cook and Janowski Associates, who were the designers hired by the committee to actually draw or design the symbols based on our recommendations. For the most part we felt that extreme abstraction and entirely literal symbols were inappropriate for our task. Instead we searched for the simplest possible image that would still be recognizable, trying to bridge the gap somehow between oversimplification and literal reality.

In the introduction to the final report we stated three very strongly felt convictions about the use of symbol signs: 1) the effectiveness of symbol signs is limited to certain simple messages. It's very difficult to symbolize a complex process; 2) it is more harmful to oversign than to undersign; and 3) symbols will be useless at a facility unless they are incorporated as part of a total sign system.

The Department of Transportation contracted with the American Institute of Graphic Arts for the design of standard symbol signs to help pedestrians find their way through public buildings. The symbols shown here are the result of that study, and are now being tested in selected sites

Landscape Architecture Environmental Planning

- 38 Opening Remarks**
Raymond L. Freeman



Raymond L. Freeman, Assistant Director for Development, National Park Service, has been with the Service since the mid-1940s directing a wide range of programs. In 1956 he was instrumental in developing the Service's "Mission 66" Program—a ten year plan for the National Parks. Mr. Freeman was President of the American Society of Landscape Architects from 1971-1973.

- 38 Aesthetics in Environmental Planning**
Marilyn Duffey-Armstrong



Marilyn Duffey-Armstrong, Operations Analyst, Engineering Systems Division, Stanford Research Institute, is best known for her expertise in environmental impact analysis and aesthetic assessment. Her report entitled *Aesthetics in Environmental Planning*, 1973, resulted from a state-of-the-art study prepared for the Environmental Protection Agency.

- 39 Post Construction Evaluation of Design Projects**
Ervin H. Zube



Ervin H. Zube is Director, Institute for Man and Environment, and professor in the Department of Landscape Architecture and Regional Planning, University of Massachusetts. He has served as a consultant to numerous state and federal government agencies, including the Army Corps of Engineers, the Department of the Interior and the Department of Housing and Urban Development.

- 40 Public Participation in Design Planning: Golden Gate National Recreation Area, San Francisco, California**

William Whalen, Moderator
Eldon Beck
Frank C. Boerger
Ron Treabess



William J. Whalen, General Superintendent, Golden Gate National Recreation Area, joined the National Park Service in 1965 as a psychologist in the Job Corps Civilian Conservation Center program in the Great Smoky Mountains National Park. Since then, he has served as a management official at Catoclin Mountain Park and worked in the Training and Personnel Divisions, Washington, D.C.



Eldon Beck, principal in the firm of Royston, Hanamoto, Beck & Abey, has been engaged in the practice of landscape architecture for sixteen years. His firm has participated in many major land planning, urban renewal and recreational projects throughout the country. Currently, Mr. Beck is principal in charge of the Golden Gate National Recreation Area (South Unit).



Frank C. Boerger is Chairman of the 15 member Citizens Advisory Commission for the Golden Gate National Recreation Area, appointed by the Secretary of the Interior. A professional engineer and principal with Madrone Associates, he has served as coordinator for the Contra Costa County Wastewater Management Studies to define solutions for municipal and industrial wastewater treatment.



Ron Treabess, a landscape architect, joined the National Park Service in 1965. Since then he has completed various projects for the Park Service offices in San Francisco, New York City and Washington, D.C. During this time Mr. Treabess has participated in various master land planning programs including the Gateway National Recreational Area in New York City.

Rocky Mountain National Park's alpine visitor center



There is hardly a social, economic or environmental issue before this country that is not somehow deeply and directly bound up with questions of land use and with questions of how and where we organize our activities in space.

The federal government administers and manages about one-third of the nation's land, and approximately 44 percent of the land in the 15 states represented here is federally controlled. Now, this amount of federal involvement becomes larger when those areas affected by federal grant programs—housing, education, medicine, flood control, agriculture, open space, recreation—are all added to this. It is in the West that many decisions will be made and actions taken that will have an effect on landscape and environmental quality.

People who have lived in the West for years and who have enjoyed the wide-open spaces, the clean air, wildlife and other amenities are also touched by the way these lands are used. While the environment of people is primarily man-made, the quality of existence relies heavily upon how we deal with the renewable resources of nature.

While there can be no completely natural environment inhabited by people, completely artificial environments are equally unlikely. Environmental planning provides a rational relationship among population characteristics and distribution and the quality of the several identifiable environments that should be protected or enhanced.

We are aware of the problems and need to focus on the process that contributes to problem solving and well-designed living spaces. Planning and design have become extensive and complicated processes. In fact, it sometimes appears that the process is the only real action we take. Our traditional end products, such as plans and the actual facilities, are developed over a very long period of time.

The planning process begins with an objective or problem identification stage and progresses through data gathering, alternative development and assessment, plan formulation, action or project development stages and finally, an evaluation of both the process and the products.

Inherent today in any processes undertaken by the government is the provision for public participation. In order for a decision making

process to be complete, members of the public must be involved from the early objective stage to the evaluation of completed projects. Precise times and methods used to gain public participation, of course, must be tailored to individual situations.

Aesthetics is one factor of environmental quality upon which we need to focus more of our attention. Not nearly enough has been done to quantify aesthetics. If one looks at environmental impact indices, it is obvious that air, water and land use planning factors are quantified to a much higher resolution than aesthetics.

Evaluation of completed projects is another major item which has not received enough effort or emphasis. We must be able to determine why certain facilities are aesthetically and environmentally pleasing, meet management objectives and user needs and why others do not. Only by systematically evaluating projects and feeding this information back into the process can we hope to improve design solutions. Improved design solutions are less costly to construct, maintain and manage. The cost of good design is a legitimate cost of doing the people's business.

Aesthetics in Environmental Planning
Marilyn Duffey-Armstrong

In trying to define aesthetics in an operational way, the major thing to look at in western culture is the gradual change in criteria. We no longer have uniform standards but we have individual values to deal with.

Aesthetics in the dictionary is defined as a branch of philosophy dealing with the nature of the beautiful and with judgments concerning beauty. Beauty is defined as a quality that gives pleasure to the senses or pleasurably exalts the mind or spirit. I believe that beauty is a verdict, a term used to express a personal reaction and not amenable to measurement. Aesthetics,

however, need not be considered merely a branch of classical philosophy. It can be considered a body of knowledge in its own right.

What is it about our senses, about our state of well-being, that allows us to perceive things in a certain way? Man has basic physiological needs that are sensory. We have visual needs, we have auditory needs, gustatory, etc. We also have certain thresholds. Now, the thresholds have been established in terms of health, but they haven't been established in terms of aesthetic needs.

We also have social and psychological needs that are very much related to aesthetic perception. Social needs can be summarized probably in the best way by saying that we have certain kinds of values that are attuned to the era that we are growing up in, to cultural and social pressures or cultural and social desire. So we have social needs and we also have psychological needs that are related to aesthetic perceptions.

In combination with the aesthetic variables of the human being, there also are aesthetic variables in the physical environment and these are the

objects that relate to our perceptions in terms of environmental variables. We have air, water, vegetation, habitat, light and noise.

We also have variables in terms of land use that relate to space. Then we have design characteristics which are components of the land use variables and these are the characteristic variables that are always listed in aesthetic impact assessments: color, texture, scale, pattern. There are natural and man-made components and they all have design characteristics which must be considered. Well, if we put these together and try to determine what aesthetic impacts are, we have the existing environment and we have a proposed

project. We superimpose that project on that site and determine what kinds of changes will take place from the project on that particular site. We identify how that site serves the individuals in that community. What are the interactions now that have aesthetic importance? We determine whether or not those aesthetic needs are affected by the changes in the site and these are the aesthetic impacts. The needs are either infringed upon or fulfilled.

We do not live in a world of unlimited resources. In terms of aesthetics, we don't have much longer to start looking at what our needs are in terms of our perceptions. We don't just have needs that are visual needs. It's no longer useful to

just count trees and determine whether or not the color is satisfactory. We perceive through all of our senses at the same time. We need to understand how our perceptions work and what the balances are, what some of the tolerance levels are for different individuals. We need to use the information provided to us by psychologists and sociologists in understanding what our cultural and social needs are in terms of aesthetics.

Post Construction Evaluation of Design Projects

Ervin H. Zube

I'd like to try to answer three questions in my comments: 1) what do we mean when we're talking about post-construction evaluation?; 2) why should we worry about post-construction evaluation, what's in it for us?; and 3) assuming you go along with me and I've convinced you that it's a useful thing and there's something in it for you, how do you go about doing it? How can one carry out an evaluation of a project after it's been constructed?

What do we mean by post-construction evaluation? Not too long ago there was a study of the profession of landscape architecture, and one of the consultants to that study was William H. Whyte. He commented on the failure of designers to observe the consequences of their actions and to systematically learn from past experience.

Post-construction evaluation then is an attempt to redress these failures. The task force report on post-construction evaluation defined that activity as an appraisal of the efficacy of a design setting to satisfy and support explicit and implicit human needs and values.

The process we're using in a National Park Service study

draws on this task force report and identifies four components of a post-construction evaluation process: the users, the thing that we're evaluating, the environmental context and the design activity.

Who are the people using the facility? Are they visitors, residents, employees? What are their perceptions of the environment? What are the spatial and temporal variations and their patterns of use? What are their levels of satisfaction?

The place, the building, the open space, whatever it is we're trying to evaluate that has been designed and built, what functions are accommodated? What are the relationships between functions, materials, spatial allocations, features and structural elements and what are the qualities such as sound, light and temperature, some of the issues we were just discussing a few minutes ago and in reference to that setting, what are the supportive management and maintenance programs?

What surrounds the project both in a social and physical environmental sense? What's the susceptibility of the project itself to external impacts from the surrounding area and/

or what's the probability of that project creating impacts on the surrounding environment?

What was the initial program of the project? What constraints exist in terms of site selection, budget, codes, regulations? Who made the decisions, who were the key actors in this activity and how much of the project was predetermined before the designer was involved and what were the designer's assumptions as to the patterns of use and users' values?

Why have post-construction evaluation?

1) Evaluation feeds back to the programming phase of the next interaction.

2) Information on different kinds of environmental settings and user responses allows us to better understand changes over time—why doesn't a building or park work as well 15 years after construction as it did 5 years after?

3) We need data which helps us make informed predictions as to social and aesthetic impacts from a range of construction projects.

4) To open up another line of communication with clients and users.

**Public Participation in
Design Planning: Golden
Gate National Recreation
Area, San Francisco,
California**

William Whalen, Moderator
Eldon Beck
Frank C. Boerger
Ron Treabess

Public participation in the design process is again seen as critical to the success of this recreation area study.

Ron Treabess: We're now in the second phase of the three phase process of our plan to develop a total Golden Gate Recreation Area. The second phase has been a series of very sophisticated workshops held throughout the area that are encouraging people to help us reach decisions.

The Bay area is notorious for having people who want to be involved in whatever is going on. That was the background that brought about the formulation of this park, the real desire of people to have a voice. The Citizens' Advisory Commission has the overriding responsibility to devise the plan.

Eldon Beck: The big thing is how do you identify the recreation user in the Bay area? It finally focuses on the quality of existing transportation, the ability to get to the site.

Ron Treabess: The other aspect of contacting the public and recording facts was that in addition to the data collection of the people throughout the Bay area, there's a very real situation of political and planning entities within the Bay area that can either affect us or be affected by us. So the park undertook a series of meetings with these various groups to try to create the necessary liaison and rapport.

Bill Whalen: We made a very conscious effort to get in touch with all of the regional bodies, elected officials, appointed ones, and commissions. We spent an hour or two in an informal setting with them talking about where we were in the planning process because we do interrelate so much with people such as the directors of the Golden Gate Bridge and Highway District, with the supervisors in both Marin County and San Francisco County, with the water

quality people, with the Bay Conservation and Development Commission, the Association of Bay Area Governments and it goes on and on and on and you only have to fail to meet with just one of these groups one time and it's brought to your attention quite quickly.

The workshops have been announced through a donation of the Municipal Transit District that put posters in 400 buses. A window poster was developed that announced the workshops and it was placed in community and youth organizations.

The newspapers were of tremendous aid as were local newsletters telling the Bay area about what was going on. There hasn't been a tremendous turnout in numbers but there has been a tremendous turnout as to input at the workshops.

The workshops themselves start with a slide show and then break into small groups so that we can have an effective communication. The alternatives developed from the summary of the workshops will be ready by the early part of next year. A plan will be in position for presentation by June 1, 1976.



Governor's Remarks

Richard D. Lamm was inaugurated Governor of Colorado in January, 1975. From 1966-74 he was a member of the Colorado House of Representatives and served as Assistant Minority Leader during the last three years of his term. As a legislator, Mr. Lamm was chief sponsor of legislation providing tax relief for the elderly, no-fault automobile insurance, and medical licensing revisions. An advocate for careful use of the state's natural resources, he has been a strong environmental voice in Colorado for many years.

Governor Lamm's remarks were delivered by Roy Romer, Executive Assistant to the Governor.

Colorado is proud to have this first Federal Regional Design Assembly here in Denver. We appreciate the recognition being given to this state by the selection of Colorado as the location for this impressive conference. We claim some credit for this state, through the Colorado Council on the Arts and Humanities, because last year Colorado was the second state in the country to sponsor a state level design conference. Five other states have now followed that lead and are also recognizing that design is an important facet of the function of government.

It took the United States government nearly 200 years to develop a federal policy toward that group of creative activities we collectively call "The Arts," and to create a workable means of implementing that policy. The National Endowment for the Arts recently celebrated its 10th anniversary as an agency of the federal government, and can look back on a record of practical success that might well be envied by many other federal agencies.

The reasons for that success are many, but one of the most critical factors has been an unusual willingness on the part of The National Endowment for the Arts to listen to those of us who live outside Washington and to allow us to identify our needs and to develop the means of addressing those needs. The partnership between the Arts Endowment and the nation's State Arts Agencies has been an exceptional example of what can be done through cooperative efforts. cooperative efforts.

Colorado was not far behind the federal government in developing a policy toward the arts and a means of implementing the policy. The Colorado Council on the Arts and Humanities, established by the state legislature in 1967, has become a nationally recognized leader among state arts agencies.

What has happened in

Washington and what has happened in Colorado occurred because of a growing recognition on the part of the federal and state government that the arts are as important to American life as are business, housing, employment and other major concerns. The arts offer an enrichment and meaning to Americans that is scarcely definable because of their unlimited potential.

Design deserves to be recognized as an important part of art and an integral part of government. Good design results in the best utilization of the space within our buildings, the most attractive appearance of our structures, as well as the best presentation of our printed and visual materials. From both an aesthetic view and a good management view, we should insist upon good design in government.

If we begin to think of design as a management tool for the most effective presentation of information, or the most effective use of our space, or as a tool to make working conditions more enjoyable, then we are recognizing what design is all about. Design does not mean extravagance or frills. It costs no more to design a building well than it does to create cold, unattractive and formidable structures. If our state publications are to be read, the information should be presented attractively. Within the confines of our current state austerity program there is no reason why a black and white letterhead cannot serve both the purposes of providing information and being attractive to look at.

The world we live in is harsh enough and the impositions we place on our natural environment destroy existing beauty. It is little enough to ask that what we create should attempt to add to rather than detract from the beauty of our world.

While you are in Colorado you will have an opportunity to see the extent to which Colorado citizens have gone to create

and re-create beauty within our cities. You will visit Boulder, one of our cities which has been most aware of the costs of growth and development and which has worked to preserve space for natural beauty. You will see the restoration of some of Denver's early architecture at what we now call Larimer Square. Ancient houses on our Capitol Hill are being painstakingly restored and preserved because the architecture of that period is of a quality and variety that can enhance our city. We hope that you appreciate the design of our Civic Center, the early dream of a farsighted mayor, Mayor Speers, who took a lot of flak in his day for clearing out tenement houses in what is now our Civic Mall and who encouraged the design of our tree-lined parkways.

We think we have a beautiful city because of the efforts of many people in the past. Much of our past is worth preserving and we need to continue to be aware that what we create through government will have a long time impact on our state and our city. Whatever you can do as a part of this conference to help us all learn to do a more effective job will help make Colorado a more beautiful state. For this we are enthusiastic and supportive.

San Francisco's Golden Gate Bridge is the focal point for the Golden Gate Recreation Area.

Federal Design Improvement Program

National Endowment for the Arts

Federal Regional Design Assembly

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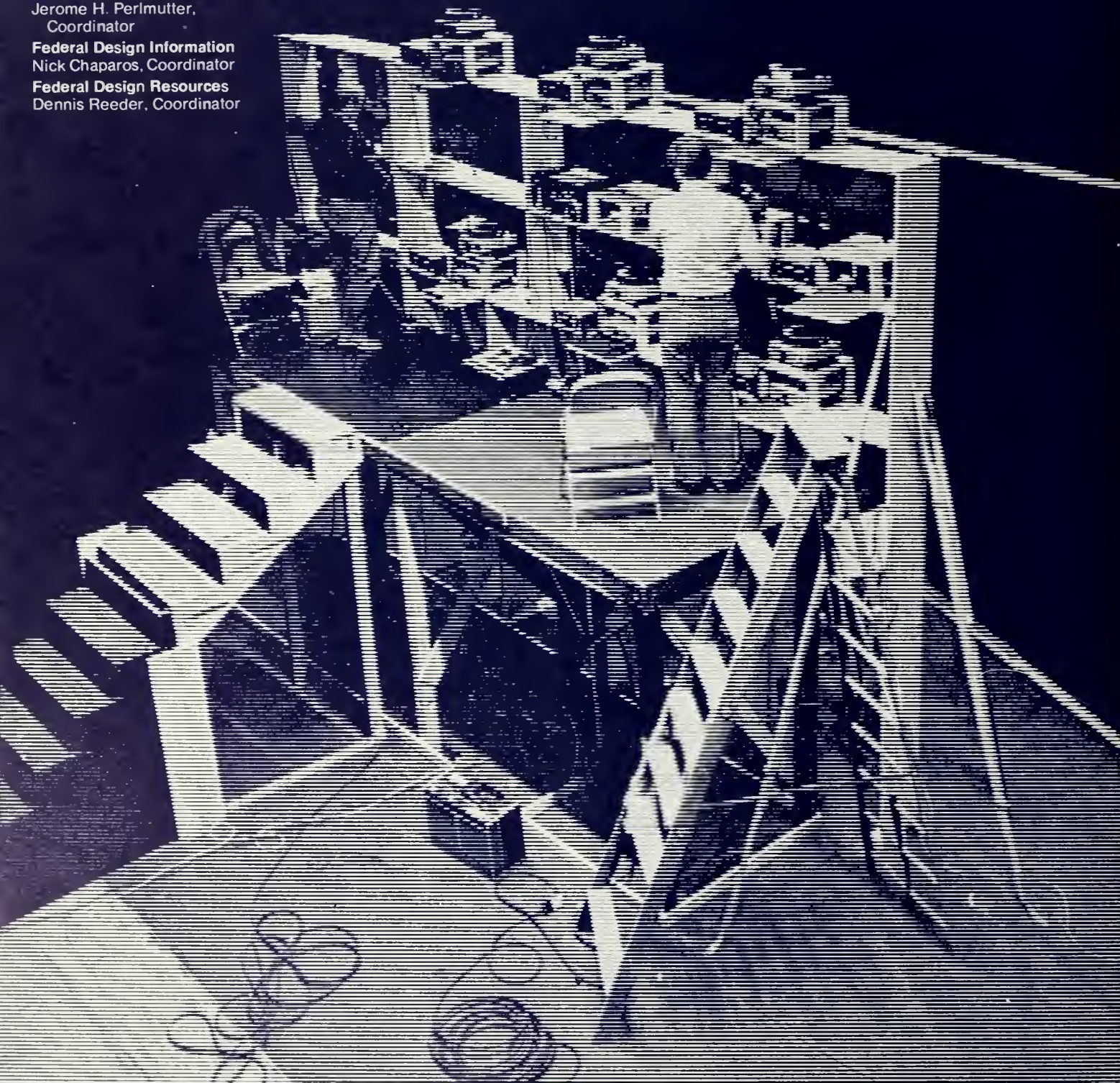
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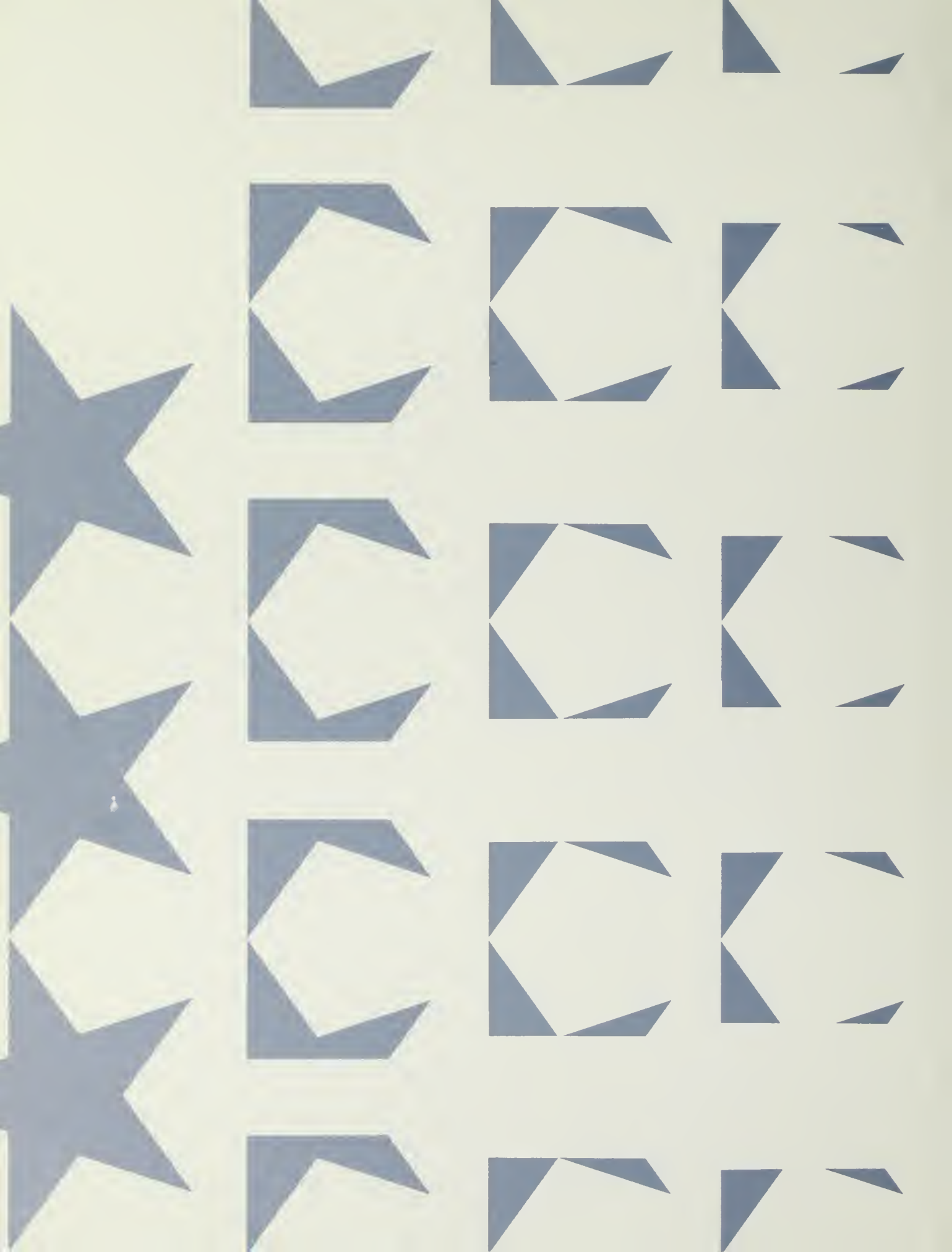


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